A Guide for Graduate Research and Supervision at the University of Waterloo

Sustainability Management Master’s Program

School of Environment, Enterprise and Development
Faculty of Environment
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Table of Contents

1. Roles and Responsibilities of
   DEPARTMENTS AND GRADUATE OFFICERS
      Information ........................................... 4
      Policies, Procedures and Regulations .............. 5
      Meetings/Consultation ................................ 5
      Monitoring Process .................................. 5
      Safety ................................................. 6
      Financial Assistance .................................. 6
      Curtailment of Supervisory Duties .................. 6

2. Roles and Responsibilities of
   SUPERVISORS
      Knowledge of Regulations, Policies and Procedures .... 7
      Advice on Program of Study/Research Project ......... 7
      Meetings/Consultation ................................ 7
      Provision for Absence ................................ 8
      Safety ................................................. 8
      Financial Assistance .................................. 9
      Intellectual Property .................................. 9
      Publications .......................................... 9
      Communication ....................................... 9
      Curtailment of Supervisory Duties .................... 10

3. Roles and Responsibilities of
   GRADUATE STUDENTS
      Regulations/Procedures ................................ 11
      Intellectual Property .................................. 12
      Thesis/Research Paper and Publications ............. 12
      Communication/Absence ................................ 13
      Safety ................................................. 13
      Financial Support .................................... 13
      Change of Supervisor or Committee Membership .... 13

4. Roles and Responsibilities of
   ADVISORY COMMITTEES
      Meetings/Consultation ................................ 14
      Curtailment of Membership on the Advisory Committee 14

5. Key University
   POLICIES AND REFERENCE MATERIALS .............. 15

6. Acknowledgements ..................................... 16

7. APPENDIX
   A GUIDE FOR GRADUATE RESEARCH AND SUPERVISION 17


Introduction

The key to success of a graduate program is fostering an environment that is open and conducive to effective and responsible learning and research. Graduate education involves complex interactions among various partners engaged in knowledge acquisition, management and conversion. Such an environment is created by a joint effort of senior administrators of the University, departments ¹ and Faculties offering graduate programs, staff, graduate supervisors, members of advisory committees and graduate students.

These guidelines have been prepared to enhance the contribution of graduate education to the intellectual development and academic success of graduate students and the University. The specific roles and responsibilities of all partners in graduate education are congruent with University of Waterloo policies pertaining to responsible conduct and integrity in research and scholarship. It is important to recognize that the key partners are the students and the supervisors.

While it is important to acknowledge that graduate students are partners in the University enterprise, it is equally important to recognize their differential power status, especially as it relates to their supervisors. Some students may feel at risk if they complain or disagree with their supervisors. At the same time, new faculty members in their role as advisors need support and mentoring by their peers at the department level. Therefore, the onus rests with the department, the supervisors and the student to promote an environment where expectations and concerns are discussed openly.

This document outlines key roles and responsibilities vital to a collaborative approach to graduate education, and should be read in conjunction with the regulations set forth in the Graduate Studies Calendar, Faculty and department manuals, and pertinent University policies (see Section 5).

¹ Read: departments, schools, centres and institutes
Chapter 1 - Roles and Responsibilities of DEPARTMENTS AND GRADUATE OFFICERS

Graduate programs are centered in the departments. For most graduate students, the first link with the University is through their home department. It is there that they find much of the information and help they need. The department, through its Graduate Officer (or Graduate Studies Committee), plays a central role in the initial matching of supervisor and student. The department/Graduate Officer also ensures that a healthy supervisor/student relationship is maintained throughout the student’s program. Each department and Faculty should have written details on the role, composition and duties of the supervisor and the Advisory Committee. Acceptance of a student into a program carries with it an obligation to provide supervision and/or advice to the student as long as the student remains in good standing in their academic program.

Specifically, departments and Graduate Officers should:

Information

1.1 Provide adequate information to all graduate students, both newly accepted and continuing, on all aspects of the program(s): admission requirements, funding, procedures and deadlines. Initial information should convey a welcoming and inclusive message to all students.

1.2 Hold graduate orientation sessions to inform students of key policies related to intellectual property (Policy 73) and integrity in research (Tri-Council Policy Statement: Integrity in Research and Scholarship, available from the Office of Research).

1.3 Inform students through various means of the services available to them, particularly those that deal with sexual harassment, discrimination and special needs (e.g., Conflict Management and Human Rights Office, Counselling Services, Office for Persons with Disabilities).

1.4 Evaluate the performance of all supervisors of doctoral students (normally reviewed by the Faculty every five years). A supervisor who does not meet the requirements of this review will assume the role of co-supervisor with an approved supervisor, until such time as he/she is reinstated.
Policies, Procedures and Regulations

1.5 Ensure that all policies, procedures and regulations with respect to graduate programs are accessible and adhered to.

1.6 Ensure that department regulations concerning the selection of supervisors are consistent with University requirements, and communicate these regulations to potential supervisors and students.

Meetings /Consultation

1.7 Ensure that the Graduate Officer and/or Advisory Committee are reasonably accessible (within ten working days) to students when called upon for discussion and consultation regarding academic and research progress.

1.8 Ensure that the Graduate Officer and/or Advisory Committee are available to the supervisor/advisor to consult and advise on issues that could affect a student’s progress or the supervisor’s/advisor’s role.

Monitoring Process

1.9 Ensure that every student has a supervisor or advisor.

Note: It is recognized that in some programs, it is desirable to identify a supervisor as early as possible, while in others, it is preferable to wait for the student to be involved in the thesis component of the program. In the latter case, it is assumed that the Graduate Officer or an appointed advisor will take on the role of advising the student until a supervisor has been identified. In non-thesis programs, Graduate Officers may have advisory responsibilities.

1.10 Ensure that a student’s progress is assessed once a semester by the supervisor, and that the supervisor provides the student with clear and timely written feedback. After 6 terms a Graduate Student Progress Report department form has to be filled out that describes the progress of the student. The form has to be signed by the supervisor, the committee members, the program director, and the student. An example for such a form can be found here: http://www.uoguelph.ca/graduatestudies/sites/default/files/docs/evaluation_report%20a.pdf

1.11 Where a supervisor is absent for any significant period of time (more than one month), ensure that their students receive interim supervision from a faculty member competent in the student’s particular area of work or that other forms of supervision, such as skype
meeting are agreed upon. No student should be left without supervision for more than one month.

1.12 Communicate and consult with the Programme Director in a timely manner concerning any unresolved issues related to the administration of the program.

Safety

1.13 Maintain a safe working environment and inform students of department, Faculty and University safety regulations as appropriate to the discipline/field.

Financial Assistance

1.14 Communicate clearly and in writing to the student any and all terms of financial assistance/support (e.g., amounts, length of time, conditions of the financial commitment), and be aware, and make students aware, of the Guidelines on Graduate Student Support (available through the Graduate Studies Office website).

Note: Students who assume duties outside their academic program (e.g., TAs) should do so only as long as it does not hamper their ability to succeed in the program.

Curtailment of Supervisory Duties

1.15 Respond promptly within two weeks) to written requests for the replacement of a supervisor or Advisory Committee member. The department has a responsibility to review the case in order to secure alternative supervision where appropriate. If the department has reason to believe that adequate supervision is not being provided, it should investigate the situation and take appropriate action which may, in extreme cases, include curtailment of supervisory status.
Chapter 2 - Roles and Responsibilities of SUPERVISORS

Graduate student supervision requires complex interaction between graduate students and their supervisors. The role of a supervisor is threefold: to advise, monitor and act as mentor. Supervisors not only provide guidance, instruction and encouragement in the research activities of their students, but also take part in the evaluation and examination of their students’ progress and performance. Supervisors are responsible for fostering the intellectual and scholarly development of their students. They also play an important role in providing advice re career paths.

Specifically, supervisors should:

Knowledge of Regulations, Policies and Procedures

2.1 Be aware of department, Faculty and University regulations, policies and procedures, and ensure that they are implemented.

2.2 Be familiar with advisory offices and counselling services available at the University, with particular attention to policies and procedures re sexual harassment, discrimination and special needs. This information is normally available through department graduate coordinators, the Graduate Studies Office, or the University Secretariat.

Advice on Program of Study/Research Project

2.3 Advise students on an appropriate program of study including but not limited to:
   - the choice of courses and seminars needed to fulfil the degree requirements and on the research topic and proposal must be signed off by the supervisor.

2.4 Develop a communication plan with the Advisory Committee as to how the student’s progress will be assessed (including during thesis writing and completion), and the role of Advisory Committee members in the assessment. The Supervisor/Advisory Committee Communication Plan Worksheet (see Appendix) can act as a tool to facilitate the development of a communication plan.

Meetings /Consultation

2.5 Ensure, especially important that the student has:
   I. an Advisory Committee
II. a program of study consistent with Faculty requirements that has been approved by the supervisor

III. a research plan (See Appendix – Table 1 and 2 – Suggested Timelines)

2.6 Arrange for regular meetings (may involve the Advisory Committee) with their students for consultation and to discuss progress. The suggested frequency of such meetings is as follows: Once a month in Term 1; once every two weeks in Term 2 & 3 (or while writing the proposal); once a month once the research process is underway. Supervisors should also be reasonably accessible (within ten working days) for meetings requested by their students.

2.7 Thoroughly examine all written materials relevant to the thesis or research paper submitted by their students and provide constructive suggestions in a timely manner preferably in writing, under the following suggested timeline:

- Course paper (with high-level feedback), five working days;
- Thesis chapter, five to ten working days;
- Full thesis draft (assuming the supervisor has read the thesis chapters along the way, five to ten working days; if not, 15-20 working days.

Students and supervisors should outline together an appropriate timetable. All timing to be considered within the constraints of the supervisor’s availability (e.g., conference attendance or vacation).

Provision for Absence

2.8 Inform and update students on academic and holiday schedules on a regular basis.

2.9 Inform students, prospective students and the department of any anticipated extended absence.
Note: In cases when the absence is for a period of two months or more, supervisors should arrange for suitable communication methods. Interim supervision also must be arranged, for example, through the use of members of Advisory Committees. Supervisors must inform the student’s department (Chair/Graduate Officer) of the arrangements made for the period of absence.

2.9a In situations (e.g., sabbatical, satellite campus, visiting professorship) where a supervisor works away from campus for two months or more and where his/her students have the opportunity to accompany the supervisor, the decision to remain on campus or to follow the supervisor rests entirely with the student. Students shall face no pressure (explicit or implicit) or consequences when making this choice and are not required to provide any reason.
Safety

2.10 Ensure a safe working environment both on and off campus (e.g., field work). As a minimum, this must be in accordance with University Policy 34 and department and Faculty regulations.

Financial Assistance

2.11 In cases where financial assistance is to be provided from research grants or contracts under their direction, communicate clearly and in writing to their students the terms (e.g., amounts, length of time, conditions) of the financial commitment.

Intellectual Property

2.12 From the outset, discuss issues related to intellectual property such as patents, software, copyright, and income from sales and royalties, and inform students of University policies re intellectual property and the conduct of research. It should be recognized that, in accordance with University Policy 73, intellectual property normally is owned by the creators. However, the University retains a royalty-free right to use, for educational and research purposes, any intellectual property created by faculty, staff and students. Supervisors should also make sure that students are aware of implications and/or obligations with regard to intellectual property of research conducted under contract. Supervisors must convey to students, in advance of publication, whether they intend to recognize the student as co-author for work under contract.

Publications

2.13 Discuss with their students, at an early stage of their program, authorship practices within the discipline and University policies re publications (see University Policy 73).

2.14 Encourage the dissemination of research results by publication in scholarly and research journals, presentation at conferences and seminars.

2.15 If appropriate, discuss with their students and any research partners the protection of intellectual property by patent or copyright. Any significant intellectual contribution by a student must be recognized in the form of co-authorship. Note: Individual departments or Faculties may have specific additional guidelines re dissemination of information, and students should be provided with a copy of these guidelines at the start of their program.
Communication

Curtailment of Supervisory Duties

2.16 Inform the student, Graduate Officer and Advisory Committee when withdrawal from their supervisory role is necessary and/or in the best interest of the student (e.g., in exceptional circumstances such as personal or professional conflicts, temporary leave because of illness, prolonged leave). Circumstances must be explained in writing and supervisors should cooperate with the Graduate Officer in arranging for continuity of supervision.
Chapter 3 - Roles and Responsibilities of GRADUATE STUDENTS

Students should look upon graduate research as an opportunity to develop as a research scholar under the mentorship of the supervisor, Advisory Committee and the department. Ultimately, students are responsible for their course of study and conducting, communicating and defending their proposed research plan and outcome.

By embarking on a program of study at the graduate level, students make a commitment to strive for the highest level of academic achievement and contribute fully to the intellectual life of the department, Faculty and University. Their prime responsibility is to meet the requirements of their degree programs in a timely manner. Graduate students play a central role in the University. They contribute to teaching and research activities by their collaboration, cooperation and inspiration. By initiating a graduate program, they engage in a partnership with their supervisor that can succeed only if it is built on mutual trust and respect. Students should seek the advice of their supervisor regarding their program of study and give serious consideration to that advice re the topic of research and adequacy of financial and physical resources available to complete the research plan. Students are responsible for producing a thesis which is the student’s own work. The thesis must meet the standards for academic quality of the department and University, and reflect a capacity for independent scholarship in the discipline. Graduate students should familiarize themselves with the location of offices on campus providing key services as well as the organization of offices/individuals involved in the administration of their graduate program.

Specifically, graduate students should:

Regulations /Procedures
3.1 Have knowledge of and meet all appropriate deadlines and regulations associated with registration, fee payment, award applications and graduation requirements, as specified by the department, Faculty and University.
Note: The University exercises its statutory jurisdiction and authority with respect to the operation, protection and control of its property and plant, and the regulation of persons on campus, insofar as is necessary to ensure the orderly performance of the University’s functions. In addition, it should be recognized that all members of the University, as members of society at large, are subject to the law (federal, provincial and municipal) with respect to their actions, whether those actions occur on or off campus.

3.2 Ensure that their research complies with Ethics Review procedures when it involves human subjects or animals, as defined by the Office of Research – Office of Research Ethics. Guidelines and policies are available online at: Office of Research (see Research Ethics).

3.3 Be responsible for developing a sound research plan with achievable timelines and milestones. They should seek the advice of their supervisor during the planning process.
3.4 Keep a systematic and accessible record of their research work and results and be able to answer to their supervisor and Advisory Committee on their progress. Note: Normally, research is funded by public or private funds and researchers are fully accountable for demonstrating authenticity of research findings at any time. Documentation of the research findings must be carried out through acceptable means for the relevant discipline/field (consult the supervisor and University policy for details).

3.5 Ensure that a meeting is held at least once a year with their supervisor and the Advisory Committee (where applicable), or as determined by their supervisor and Advisory Committee (see section 2.4). At least once a year, students should prepare/present a progress report to the supervisor and Advisory Committee members. Note: Normally two consecutive unsatisfactory progress reports may result in requiring the student to withdraw from the program (see section 2.16).

3.6 Take full responsibility for progress in their academic and research program following thorough consultation, as appropriate, with their supervisor and Advisory Committee.

3.7 Allow adequate time (as per section 2.7) for their supervisor and Advisory Committee to provide comments on written material. Students must consult their supervisor and Advisory Committee to estimate the time required to complete a thesis.

3.8 Allocate sufficient time to meet important deadlines (as outlined in the Appendix; e.g., registration, thesis submission to committee members).

**Intellectual Property**

3.9 Be aware of and adhere to University policy on the ownership of intellectual property (University Policy 73) and the Tri-Council Policy Statement: *Integrity in Research and Scholarship*, available from the Office of Research. Further, students must respect any contractual terms under which their research is conducted.

**Thesis/Research Paper and Publications**

3.10 Discuss, prior to the submission of a thesis/research paper, a draft of the submission with their supervisor. Note: Students must comply with their supervisor’s request to review any original data associated with the thesis/research paper. Students are expected to acknowledge in the thesis/research paper any assistance, materials and/or data provided by other scholars. Such acknowledgements could refer to students, technicians and others, funding/scholarships, institutional and financial support.
3.11 Comply with a responsible standard of conduct in research while publishing/disseminating research materials/findings related to their graduate research (University Policy 73 and conventions in the field should be followed). Note: Students may not submit a paper for publication as co-authored without agreement of the co-author(s), including the supervisor, nor submit without consultation with the supervisor a paper authored by the student (solely or jointly with others) if the research project involved use of University facilities or was part of the student’s academic program. In such cases, institutional affiliation should be mentioned. Conventions of the field regarding authorship should be observed.

Communication/Absence

3.12 Before requesting a leave of absence, discuss the leave with their supervisor, seek departmental approval, arrange to maintain regular communication with their supervisor or designate, and interact with their Advisory Committee as appropriate. Students engaged in field work continue to be subject to all University policies.

3.13 Communicate with the department/Graduate Officer and supervisor on the progress and anticipated submission dates of research papers or theses.

Safety

3.14 Familiarize themselves and comply with the safety regulations specified by the supervisor, department, Faculty and University (see University Policy 34).

Financial Support

3.15 If supported by teaching assistantships, research assistantships, contracts, etc., meet the terms and conditions of the contractual agreement with the supporting agency/department and Faculty and the relevant guidelines for financial support. Students should also be familiar with the University Guidelines on Graduate Student Support.

Change of Supervisor or Committee Membership

3.16 Inform the Graduate Officer, in writing, should a personal or professional conflict with their supervisor or an Advisory Committee member occur. Every effort should be made to resolve a conflict before resorting to formal procedures as defined in University Policies 70 and 71.
Chapter 4 - Roles and Responsibilities of ADVISORY COMMITTEE

The Advisory Committee (AC) acts as a partner with the student in guiding and advising the student on research issues, and assisting in monitoring functions. The AC will be composed of two members (usually two SEED faculty members, exceptions have to be approved by the programme director). Members are selected based on their fields of expertise, the nature and planning of the research project and to complement one another. They also provide critical and constructive feedback on the student’s research.

Specifically, Advisory Committee member

Meetings /Consultation

4.1 Meet as required to review the student’s progress and provide advice. Advisory Committees should meet at the request of students. Meetings should be arranged as required to support the student’s progress (see sections 2.4 and 3.5).

4.2 Be reasonably accessible to students when called upon for general guidance, consultation or discussion on academic progress or research projects.

4.3 Review the thesis in a timely manner (as outlined in sections 2.6 and 2.7) before the thesis is examined.

4.4 In the case of a thesis, provide students with discipline/field specific guidelines and direct them to appropriate University requirements for preparing theses.

Curtailment of Membership on the Advisory Committee

4.5 Ask the Graduate Officer to be relieved of their duties in the event that doing so is deemed necessary by the member(s) (e.g., personal or professional conflict, prolonged absence, and doing so is in the best interest of the students) or the supervisor or student.
Chapter 5 – Key University
POLICIES AND REFERENCE MATERIALS

- Policy 33 – Ethical Behaviour
- Policy 34 – Health, Safety & Environment
- Policy 64 – Use of Proprietary Computer Software
- Policy 69 – Conflict of Interest
- Policy 70 – Student Petitions and Grievance
- Policy 71 – Student Discipline
- Policy 72 – Student Appeals
- Policy 73 – Intellectual Property Rights
- Graduate Studies Calendar
- Guidelines on Graduate Student Support
- Guidelines on Birth and Parental Leave for Graduate Students
- Organization of Graduate Studies
- Resolution of Disputes Between TAs and Instructors and RAs and Supervisors [also applicable to student/supervisor relationships]
- Office of Research Ethics – Guidelines and Policies
- Tri-Council Policy Statement: Integrity in Research & Scholarship (Office of Research Ethics)
- Tri-Council Policy Statement & Ethical Conduct for Research Involving Humans (Office of Research Ethics)
- Canadian Council on Animal Care Guidelines (Office of Research Ethics)
Chapter 6 - Acknowledgements

This document was adapted from the University of Waterloo’s A Guide for Graduate Research and Supervision at the University of Waterloo, for application in the Faculty of Environment’s Sustainability Management Master’s Program.

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# Chapter 7 – Appendix

## TABLE 1: Suggested Timeline for Sustainability Management Master’s Program

| Terms 1 & 2 | Select supervisor and research topic  
Select Advisory Committee  
Complete course work (All electives require approval by Supervisor)  |
| Terms 3 & 4 | Complete thesis proposal  
Initiate research  
Reassess research plan  
Develop an alternate plan with the approval of the Advisory Committee if difficulties arise in achieving the approved plan  |
| Terms 5 & 6 | Complete research  
Write and defend thesis  |
Supervisor/Advisory Committee Communication Plan Worksheet

The following are some items to discuss with your advisor to make sure you are both on the same page with respect to expectations for your thesis.

1. Meetings with your supervisor/advisory committee
   a. Decide with your advisor how often you will meet and for how long
   b. Discuss whether meetings by telephone or video conference are acceptable from time-to-time

2. Providing your supervisor/advisory committee with updates
   a. Determine how often your advisor would like updates on your thesis/research progress (e.g. if you are only meeting every few weeks, would your advisor like you to provide email updates in between meeting?)
   b. Discuss how far in advance advisor requires you to send him/her items for or review for your regular meeting?

3. Advisory Committee member
   a. Discuss potential committee members early on in the process. You should aim to have your thesis committee established by the end of the Winter term.
   b. Discuss with your advisor what role the committee member should play in your thesis
   c. Once potential faculty have been discussed, ensure that you contact the committee member to see if they are interested in being part of your thesis committee (unless otherwise indicated by your advisor)
   d. Once you have a committee member you should discuss with him/her all of the same items listed under “meeting with your advisor” and “providing your advisor with updates” (e.g. how often you will meet, what area of his/her expertise you are hoping to draw on).

4. Timeline/deliverables
   a. Discuss with your thesis committee your timeline for completion of the various deliverables for your research
   b. Determine whether ORE clearance is required for the primary research you are conducting

5. Thesis content and research approach
   a. Communicate with your thesis committee about the conceptual framework you will be using as well as the overall research approach. Address any differences in approaches early on (i.e. differences between committee members, differences between you and the committee members).